

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-10 (Previously canceled).

Claim 11 (Currently amended): A method for detecting a perpendicularity error of ~~the~~ a guide rail of a lift, comprising ~~the~~ steps of:

- (1) selecting a plurality of monitoring points on a side or top working surface of said lift;
- (2) obtaining a positional coordinate of each said monitoring point in ~~the~~ a longitudinal direction of said ~~guide~~ guide rail and obtaining ~~the~~ a distance between two adjacent monitoring points;
- (3) measuring ~~the~~ an included angle between ~~the~~ a connecting line of said two adjacent monitoring points and ~~the~~ a plumb line; and
- (4) obtaining said perpendicularity error of the guide rail of said lift from a calculation performed by a microprocessor.

Claim 12 (Original): The method of claim 11, wherein said positional coordinate, said distance, and said included angle are sent to said microprocessor.

Claim 13 (Original): The method of claim 12, wherein said calculation performed by said microprocessor is based at least partially on said positional coordinate, said distance and said included angle.

Claim 14 (Currently Amended): An apparatus for practicing the method of claim ~~+~~ 11, comprising:

- (1) a frame;
- (2) at least two detector heads adapted to contact with a working surface of a guide rail of a lift;

(4) an inclination sensor capable of measuring ~~the~~ an included angle between ~~the~~ a connecting line of two detector heads and ~~the~~ a plumb line; and

(5) a microprocessor capable of analyzing said displacement distance and said inclination;

wherein said detector heads, said displacement sensor, said inclination sensor, and said microprocessor are installed either on or in said frame.

Claim 15 (Original): The apparatus of claim 14, further comprising a power supplier installed on or in said frame.

Claim 16 (Original): The apparatus of claim 14, wherein each of said displacement sensors and said inclination sensor has at least one output terminal and said microprocessor has at least one input terminal; said output terminal being connected to said input terminal.

Claim 17 (Original): The apparatus of claim 15, wherein at least one of said detector heads is of a roller type with an excircle surface contacting with said working surface of said guide rail.

Claim 18 (Original): The apparatus of claim 15, wherein at least one of said detector heads is of a slide block type with a sliding surface contacting with said working surface of said guide rail.

Claim 19 (Original): The apparatus of claim 15, wherein said detector heads comprising a pressing unit, said pressing unit keeping said detector in contact with said working surface.

Claim 20 (Original): The apparatus of claim 19, wherein said pressing unit is of a spring type or a magnetic power type.

Claim 21 (Original): The apparatus of claim 17, wherein said displacement sensor is a rotary encoder.

Claim 22 (Original): The apparatus of claim 21, wherein said rotary encoder is connected to said detector heads by a flexible coupling.

Claim 23 (Original): The apparatus of claim 15, wherein at least one of said displacement sensors is a photoelectric sensor.

Claim 24 (Original): The apparatus of claim 23, wherein said photoelectric sensor does not come in contact with said working surface of said guide rail, leaving a gap between said photoelectric sensor and said working surface.

Claim 25 (Original): The apparatus of claim 24, wherein said gap is at least 1 mm.